

REMARKS

Claims 1-33 are pending. The amendment to the claims and following remarks are provided in response to the Office Action dated August 10, 2006. In view of the amendments and the remarks below, Applicant requests reconsideration of the rejected claims by the Examiner under 37 C.F.R. § 1.111.

Rejection of Claims 1, 2, 21 and 23-33 under 35 U.S.C. 102(e)

Claims 1, 2, 21 and 23-33 are rejected under 35 U.S.C. 102(e) as anticipated by Olofsson et al. (USP 6,668,159).

Independent Claim 1

Claim 1 is not anticipated by Olofsson et al. Claim 1 requires "a judging unit for judging a probability of continuation of a communication based on the predicted quality of the signal to be received and the measured quality of the received signal," which is not disclosed or suggested in Olofsson et al. Rather, in Olofsson, a predicted bit rate is calculated, but the quality of the received signal is not measured. On the other hand, in the present invention, as claimed, a probability of continuation of a communication is judged by using the predicted quality of the signal to be received and the measured quality of the received signal (refer to [0090] of US Pub 2004/0229570). In the present invention, as claimed, a probability of continuation of a communication can be judged accurately by the predicted quality and the measured quality with respect to the prediction. Thus, Olofsson does not disclose judging a probability of continuation of a communication by using the predicted quality of the signal to be received and the measured quality of the received signal.

Independent Claim 21

Claim 21 is not anticipated by Olofsson et al. Claim 21 requires, inter alia, "a correcting unit for correcting the measured quality of the received signal by using the calculated correction value," which is not disclosed or suggested in Olofsson et al. Rather, in Olofsson et al., bit rate is predicted by using the maximal bit rate and the parameter N (See Col. 6, lines 7-20). Furthermore, in Olofsson (Col. 6, lines 15-20), the parameter N is a received low BCCH signal strength. The parameter N is not a correction value that is calculated based on a preset reference value and the detected power value as disclosed in the present invention. Thus, Olofsson does not disclose the above configuration of the present invention, and the object and the effect of Olofsson are also different from those of the present invention.

Dependent Claim 23

Claim 23 depends from independent claim 21. Dependent claim 23 requires, inter alia, "sett[ing] a minimum receivable power value as the reference value," which is not disclosed or suggested in Olofsson et al. In contrast, in Olofsson, there is no need to set a minimum receivable power value as the reference value in order to indicate the "low" state. For example, the "low" state can be judged by a comparison with a threshold value. Thus, claim 23 is not anticipated by Olofsson et al on this separate ground. It is also not anticipated for the same reasons independent claim 21 is not anticipated by Olofsson et al.

Dependent Claim 24

Claim 24 depends from independent claim 21. Dependent claim 24 requires, inter alia, "sett[ing] the correction value to zero if the detected power value is outside of a predetermined range," which is not disclosed in Olofsson et al. Fig. 5b of Olofsson shows a case only when the parameter N is zero, and does not disclose setting the correction value to zero if

the detected power value is out of a predetermine range. Indeed, Olofsson et al. is radically different from the claimed invention. Thus, claim 24 is not anticipated by Olofsson et al on this separate ground. It is also not anticipated for the same reasons independent claim 21 is not anticipated by Olofsson et al.

Furthermore, the Examiner points that Olofsson et al. further discloses correcting the measured quality of the received signal by the calculated correction value as in predicting the bit rate, with respect to claim 21, on page 3 of the Office Action. However, for dependent claims 25 and 26, which both depend from claim 21, the Examiner points out that a prediction value of a communication rate of a signal being transmitted from the base station apparatus in the future, based on the corrected quality of the received signal is the "predicted bit rate". Applicants respectfully submit there is an inconsistency in the Examiner's comments in pointing out that the corrected quality of the received signal is the predicted bit rate and further the prediction value of a communication rate of a signal is the predicted bit rate.

Independent Claim 28

Independent claim 28 is not anticipated by Olofsson et al. Claim 28 requires, inter alia, "a calculating unit for calculating a signal occupation ratio based on the measured actual communication rate value and a prediction value corresponding to the measured actual communication rate value among prediction values stored in the storing unit," which is not disclosed in Olofsson et al. In Olofsson, the parameter N is a percentage reduction of bit rate due to all limiting factors, but not a prediction value of a communication rate. Also, the parameter M is the maximal bit rate (from step 4), but not an actual communication rate. The predicted bit rate, in Olofsson et al., is calculated based on the percentage reduction of bit rate due to all limiting factors and the maximal bit rate. Thus, the signal occupation ratio is not the predicted

bit rate. This is readily distinguishable from the claimed invention wherein a signal occupation ratio is calculated based on the measured actual communication rate value and a prediction value. In addition, Olofsson et al. does not disclose a correcting unit for correcting the prediction value by using the signal occupation ratio as required by claim 28. Thus, independent claim 28 is not anticipated by Olofsson et al.

Furthermore, there is inconsistency in the Examiner's comments in the Detailed Action as compared to the explanation for claim 21 and the explanation for claims 25 and 26 as discussed above.

Dependent Claims 29 and 30

Claims 29 and 30 are dependent on independent claim 28. Dependent claim 29 requires, inter alia, statistical processing to determine a measured ratio between the measured actual communication rate value . . ." which is not disclosed in Olofsson et al. In Olofsson et al., the equation, as used in Col. 6, line 15 thereof, cannot be interpreted as statistical processing. Rather, the measurement is performed periodically and the processing is performed for every measurement (see Col. 5, line 58 - Col. 6, line 35), without performing the statistical processing. Dependent claim 30 requires that "the correcting unit corrects the prediction value by multiplying the prediction value by the signal occupation ratio." Nowhere is this suggested or disclosed in Olofsson et al. Thus, dependent claims 29 and 30 are not anticipated by Olofsson et al on those separate grounds. Also, they are not anticipated for the same reasons independent claim 28 is not anticipated by Olofsson et al.

Dependent Claims 31-33

Claim 31 depends from independent claim 28. Claim 31 requires a "notifying a user of a corrected prediction value." Olofsson et al. does not disclose the corrected prediction

value. Claims 32 and 33 depend from independent claim 28. Thus, dependent claim 31 is not anticipated by Olofsson et al on those separate grounds and dependent claims 31-33 are not anticipated for the same reasons independent claim 28 is not anticipated by Olofsson et al.

Rejection of claims 3-13 under 35 U.S.C. 103(a)

Claims 3-13 are rejected under 35 U.S.C. 103(a) as unpatentable of Olofsson et al.

Independent Claim 3

In claim 3, a second prediction value is calculated by using a difference between "the first prediction value" and "the index value" (actual value) at the timing corresponding to the first prediction value. As used in claim 3, a timing at which the measuring unit measures a quality of the received signal when an estimating unit derives a first prediction value of a communication rate of a signal is different from a timing at which the measuring unit measures a quality of the received signal when an index calculating unit calculates an index value. By the amendment to claim 3, it is clearly described that the former is "previously measured" and the latter is "newly measured at next timing."

Next, the Examiner points that Olofsson further disclose predicting a quality of a signal to be received based on the quality of the received signal being previously measured by the measuring unit and the calculated index value, in page 6, lines 3-5 of the Office Action. However, according to Olofsson, the parameter M is the maximal bit rate (from step 4). The parameter M is not what can be obtained by the measurement (measured quality), nor the quality of the received signal being previously measured by the measuring unit nor the calculated index value.

Furthermore, in Olofsson, the parameter N is a percentage reduction of bit rate due to all limiting factors. The parameter N is not the index value calculated based on the

quality of the received signal that is newly measured at the next timing of the first prediction value, nor the quality of the received signal being previously measured by the measuring unit.

In the claimed invention, a second prediction value of the communication rate is calculated based on the index value and the first prediction value. On the other hand, in Olofsson, the predicted bit rate is calculated based on the percentage reduction of bit rate due to all limiting factors and the maximal bit rate. Also, in the claimed invention, an index value is calculated based on the quality measured after the measurement for the first prediction value. On the other hand, Olofsson does not disclose two values measured at different timings. Since the second prediction value is calculated based on the "prediction (first prediction value)" and "actual measurement (the index value) at the timing corresponding to the prediction (first prediction value)" (whether the prediction is correct or not) and is notified, highly-accurate prediction value can be notified. Thus, Olofsson does not disclose nor suggest the present claimed invention.

Independent claims 5, 7 and 9

Independent claims 5, 7 and 9 (and their dependent claims) require a second prediction value of the communication rate is calculated based on a first prediction value of a communication rate of a signal and a second index value. The Examiner points that Olofsson further discloses predicting a quality of a signal to be received based on the quality of the received signal being previously measured by the measuring unit and the calculated index value, in page 8, lines 6-9 of the Office Action. However, according to Olofsson, the parameter M is the maximal bit rate (from step 4). The parameter M is not what can be obtained by the measurement (measured quality), nor the quality of the received signal being previously measured by the measuring unit, nor the calculated index value. Furthermore, in Olofsson, the

parameter N is a percentage reduction of bit rate due to all limiting factors. The parameter N is not the index value calculated based on a preset reference value and the detected power value, nor the quality of the received signal being previously measured by the measuring unit.

In the present invention, as claimed by claims 5, 7 and 9 (and their dependent claims) a second prediction value of the communication rate is calculated based on the second index value and the first prediction value. On the other hand, in Olofsson et al., the predicted bit rate is calculated based on the percentage reduction of bit rate due to all limiting factors and the maximal bit rate. As compared to Olofsson et al, the claimed invention, by having the second prediction value calculated based on the "prediction (first prediction value)" and "correction value (the second index value) by the received power" a highly-accurate prediction value can be notified. Thus, Olofsson et al., which does not disclose nor suggest the claimed invention, does not render obvious those independent claims or any of their dependent claims.

Claims 11-13

Olofsson does not disclose nor suggest a minimum receivable power value. Thus, claims 11-13, which depend from claims 5, 7 and 9, respectively, are not rendered obvious by Olofsson et al.

Rejection of claims 14-20, 22 under 35 U.S.C. 103(a)

Claims 14-20, 22 are rejected under 35 U.S.C. 103(a) as obvious over Olofsson et al. in view of Todd et al. (USP 6, 035,183).

Dependent Claims 14-16

Claims 14-16 depend from claims 5, 7 and 9, respectively. The Examiner relies on Todd et al. as teaching detection power value RSSI. RSSI (radio signal strength indicator) is a signal transmitted from the terminal, which is measured by the base station. RSSI is not a

transmission power which corresponds to an instruction information included in the received signal and is transmitted at next timing. Moreover, in Todd et al. (USP 6,035,183), there is a description about a threshold. However, the threshold is not a maximum transmissible power value. Thus, claims 14-16 are not obvious over Olofsson et al. in view of Todd et al.

Independent claims 17 and 19

Claims 17 and 19 require a second prediction value of the communication rate that is calculated based on a first prediction value of a communication rate of a signal and a second index value. The Examiner points that Olofsson further discloses predicting a quality of a signal to be received based on the quality of the received signal being previously measured by the measuring unit and the calculated index value, in page 10, lines 14-17 of the Office Action. However, according to Olofsson, the parameter M is the maximal bit rate (from step 4). The parameter M is not what can be obtained by the measurement (measured quality), nor the quality of the received signal being previously measured by the measuring unit, nor the calculated index value. Furthermore, in Olofsson, the parameter N is a percentage reduction of bit rate due to all limiting factors. The parameter N is not the index value calculated based on a detected reception power value and a minimum receivable power value, or the detected reception power value and a maximum transmissible power value. The parameter N is not the quality of the received signal being previously measured by the measuring unit.

In the present invention, a second prediction value of the communication rate is calculated based on the first index value or the second index value and the first prediction value. On the other hand, in Olofsson, the predicted bit rate is calculated based on the percentage reduction of bit rate due to all limiting factors and the maximal bit rate. Olofsson does not disclose nor suggest the present invention. As compared to Olofsson et al, alone, or in

combination with Todd et al., the claimed invention, by having the second prediction value calculated based on the "prediction (first prediction value)" and "correction value (the second index value) by the received power" a highly-accurate prediction value can be notified.

Furthermore, as previously discussed, Todd et al. uses a RSSI (radio signal strength indicator), which is a signal transmitted from the terminal, which is measured by the base station. RSSI is not a transmission power which corresponds to an instruction information included in the received signal and is transmitted at next timing. Moreover, in Todd et al., there is a description about a threshold. However, the threshold is not a maximum transmissible power value. Thus, independent claim 17 and 19 (and their dependent claims) are not rendered obvious by the combination of Olofsson et al. and Todd et al.

Dependent claim 22

Dependent claim 22 depends from independent claim 21. As previously discussed, claim 21 is not anticipated or rendered obvious by Olofsson et al. As for Todd, again the Examiner relies on the teaching of RSSI, which is not a transmission power which corresponds to an instruction information included in the received signal and is transmitted at next timing. Moreover, in Todd et al. (USP 6,035,183), there is a description about a threshold. However, the threshold is not a maximum transmissible power value. Thus, claim is not rendered obvious by the combination of Olofsson et al. and Todd et al.

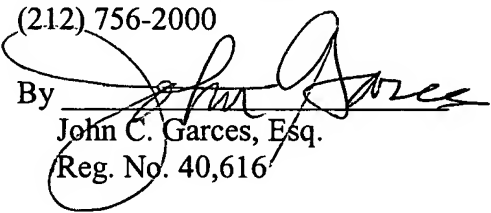
For the foregoing reasons, Applicants respectfully submit claims 1-33 are allowable over the cited prior art.

An early and favorable action is respectfully requested. The Examiner is urged to telephone Applicant's undersigned counsel at the number noted below if it will advance the prosecution of this application, or with any suggestion to resolve any condition that would impede allowance. In the event that any extension of time is required, Applicant petitions for that extension of time required to make this response timely. Kindly charge any additional fee, or credit any surplus, to Deposit Account No. 50-0675, Order No. 848075-0071.

Respectfully submitted,

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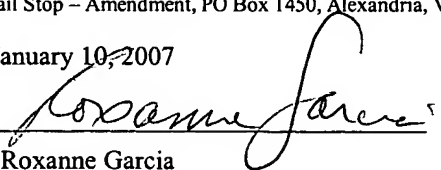

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